



## Health Science Clinical Study - 5560

### (CNA or CPCT/A or other Clinical Experience)

**Course Description:** Health Science Clinical Study is a course that guides students to make connections from the classroom to the healthcare industry through clinical experiences/activities. This course is designed to provide for further development and application of knowledge and skills common to a wide variety of healthcare professions. The students in this course will build on all information and skills presented in the previous required course foundation standards. The students will relay these skills into real life experiences. The student, teachers and work-based learning coordinators will work together to create opportunities for the students to get the best experience available in the districts geographic region. **Students in this course must be BLS Healthcare Providers CPR certified and HIPAA trained before participating in any healthcare experience outside of the classroom. OSHA Safety Training – Healthcare certification is highly recommended.**

**General Requirements:** This course is recommended for students in grade 12.

**Pre-requisites:** Successful completion of Health Science 1, 2 & 3\* with an **overall score in each course of 75% or higher**. Or a 3 unit completer in any Health Science pathway. (\*HS 3 may be substituted with the following courses: PLTW Human Body Systems, Science based Anatomy and Physiology, AP Biology, or Medical Terminology.) **\*\*Please note:** Only HS3, Medical Terminology or PLTW HBS will count towards being a completer in the Health Science Cluster. (AP Biology or Science A& P **will not**)

Also recommended, **but not required**, pre-requisites or co-requisites for the course are Biology and Chemistry.

**Credit: 1** (120 hours or more) **or 2 unit (s)** (240 hours or more)

**Other:** *Students enrolled in this course as their 3<sup>rd</sup> or 4<sup>th</sup> earned unit are considered completers in the Health Science Program and are expected to take the end of program National Health Science Assessment.*

**Certified Nurse-Aide (CNA) candidates.** Under the direction and supervision of a registered nurse, students are prepared to perform nursing-related services to patients and residents in hospitals or long-term care facilities. For Nurse –Aide programs students will review all foundation standards in the clinical study program as well as the addition of the South Carolina Nurse Aide Curriculum found in the training program packet.

<http://www.asisvcs.com/publications/pdf/074118.pdf>

**This course meets all DHHS federal and state requirements for a certified nurse aide program in an approved NA training facility (NA program is optional and requires an RN with specific experience to instruct this course)**

**Certified Patient Care Technician/Assistant (CPCT/A) candidates.** Under the direction and supervision of a registered nurse, students are prepared to perform patient care services in hospitals or other clinical settings, including phlebotomy and electrocardiogram skills. For Patient-Care Technician/Assistant programs students will review all foundation standards in the clinical study program, as well as complete the objectives covered in the “NHA Test Plan.”

[http://www.nhanow.com/docs/default-source/pdfs/exam-documentation/test-plans/nha-certified-patient-care-technician-assistant-\(cpct-a\)-test-plan.pdf?sfvrsn=2he](http://www.nhanow.com/docs/default-source/pdfs/exam-documentation/test-plans/nha-certified-patient-care-technician-assistant-(cpct-a)-test-plan.pdf?sfvrsn=2he)

This is a national certification **(CPCT/A program is optional and requires an RN with hospital experience to instruct this course. (Experience with trach tubes, stomas, phlebotomy, and EKG as well as other technical skills acquired in medical surgical settings).)**

**Other optional industry recognized certifications available are:** <http://www.nhanow.com/>

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| Electronic Health Record Specialist (CEHRS) | Any Health Science Certified Instructor                            |
| Medical Administrative Assistant (CMAA)     | Any Health Science Certified Instructor                            |
| Billing and Coding Specialist (CBCS)        | Any Health Science Certified Instructor                            |
| EKG Technician (CET)                        | RN or Health Science Certified Instructor with specific experience |
| Phlebotomy Technician (CPT)                 | RN or Health Science Certified Instructor with specific experience |

**You may ask: *What if we don't offer any of the above certifications?*** That is perfectly fine. On your own, or in conjunction with your WBL coordinators, you can still create quality worked based learning /clinical opportunities for students who have satisfactorily demonstrated the professional qualities and the technical skills needed. Students may go on extended rotations in the hospital, dental, veterinary, chiropractic, pharmacy, medical clinic, and doctor office settings (etc.) during the designated class time for 2 weeks or **more**. They should have common learning goals and assignments, based on the standards, and should all have the same training and review in the classroom for testing purposes. BLS certification would still be required and you should incorporate OSHA Safety Training – Healthcare Certification and HIPAA training.

## Foundation Standards:

1. **Foundation 1: Academic Foundations:** Understand human anatomy, physiology, common diseases and disorders, and medical math principles.
2. **Foundation 2: Communications:** Demonstrate methods of delivering and obtaining information, while communicating effectively.
3. **Foundation 3: Systems:** Identify how key systems affect services performed and quality of care
4. **Foundation 4: Employability Skills:** Utilize employability skills to enhance employment opportunities and job satisfaction. *Students should participate in a clinical experience based on the schools choice. Clinical experiences tend to last 2-6 weeks and can be at the same facility or several different facilities to achieve a broad experience. Should a school choose a certification path of Nurse Aide, Patient Care Tech, Medical Administrative Assistant, etc...the clinical experiences should follow the guidelines and tie in to the skills needed for the certifications.*
5. **Foundation Standard 5: Legal Responsibilities:** Describe legal responsibilities, limitations, and implications on healthcare worker actions.
6. **Foundation Standard 6: Ethics:** Understand accepted ethical practices with respect to cultural, social, and ethnic differences within the healthcare environment.
7. **Foundation Standard 7: Safety Practices:** Identify existing and potential hazards to clients, co-workers, and self. Employ safe work practices and follow health and safety policies and procedures to prevent injury and illness.
8. **Foundation Standard 8: Teamwork:** Identify roles and responsibilities of individual members as part of the healthcare team.
9. **Foundation Standard 9: Health Maintenance Practices:** Differentiate between wellness and disease. Promote disease prevention and model healthy behaviors.
10. **Foundation Standard 10: Technical Skills:** Apply technical skills required for all career specialties and demonstrate skills and knowledge as appropriate. ***Clinical Study Students should receive Basic Life Support for Healthcare Provider certification from American Heart Association (preferred) or American Red Cross.*** OSHA \*Specific skills may be included in a program of study based on career specialties. For example - \*Nurse Aide candidates will need to satisfy skill requirements for their certification assessment. \*Patient Care Technician/Assistant students will satisfy skill requirements for phlebotomy and electrocardiography.

**11. Foundation Standard 11: Information Technology Applications:** Utilize and understand information technology applications common across health professions.

**Detailed Foundation Standards Curriculum** can be found at:

<http://ed.sc.gov/scdoe/assets/File/programs-services/142/documents/NATIONAL-HEALTH-SCIENCE-STANDARDS-May2015f.pdf>

*South Carolina requires that a certified Nurse Aide Training Program consist of a minimum of one-hundred (100) hours. This is to include forty (40) hours of classroom instruction, twenty (20) hours of documented skills practicum and forty (40) hours of clinical experience in a long-term care (LTC) facility.*

**Detailed SC Certified Nurse Aide curriculum** can be found at:

<http://www.asivcs.com/publications/pdf/074118.pdf>

**Detailed Patient Care Technician Assistant curriculum** can be found at:

<http://www.nhanow.com/certifications/patient-care-technician>

**Other Available Certifications in this pathway:**

Medical Administrative Assistant (CMAA)

<http://www.nhanow.com/certifications/medical-administrative-assistant>

Billing and Coding Specialist (CBCS)

<http://www.nhanow.com/certifications/billing-coding>

Electronic Health Record Specialist (CEHRS)

<http://www.nhanow.com/certifications/electronic-health-records-specialist>

Paid Feeding Assistant (PFA)

<https://www.scdhhs.gov/internet/pdf/NursFacHosPaid%20Feeding%20Assistant%20Program.pdf>

Certified EKG Technician (CET)

<http://www.nhanow.com/certifications/ekg-technician>

Phlebotomy Technician Certification (CPT)

<http://www.nhanow.com/certifications/phlebotomy-technician>

BLS – Healthcare Providers CPR

[http://cpr.heart.org/AHA/ECC/CPRAndECC/Training/HealthcareProfessional/BasicLifeSupportBLS/UCM\\_473189\\_Basic-Life-Support-BLS.jsp](http://cpr.heart.org/AHA/ECC/CPRAndECC/Training/HealthcareProfessional/BasicLifeSupportBLS/UCM_473189_Basic-Life-Support-BLS.jsp)

## Resources:

Browse catalog at [www.mysctextbooks.com](http://www.mysctextbooks.com) for latest instructional materials available to South Carolina public schools for health science technology courses.

Simmers, Louise. Diversified Health Occupations. Albany, New York: Delmar, latest edition. -----, -----: Teacher's Resource Kit, latest edition. -----, -----: Workbook, latest edition.

HealthCenter21 (SC Gerontology)  
<https://learn.aeseducation.com>

Sorrentino, Sheila A. Mosby's Textbook for Nursing Assistants. Student Edition, Elsevier, Inc. Mosby and WB Saunders, latest edition.

Thibodeau, Gary A., and Kevin T. Patton, Structure & Function of the Body. Student Edition, Elsevier, Inc. Mosby and WB Saunders, latest edition.

Grubbs, Peggy A. Essentials for Today's Nursing Assistant, Upper Saddle River, New Jersey: Brady, latest edition.

Hegner, Barbara R., Ester Caldwell, and Joan F. Needham. Nursing Assistant, Albany, New York: Delmar Publishers, Latest edition.

South Carolina Nurse Aide Curriculum. Developed by the South Carolina Department of Health and Environmental Control and the South Carolina Department of Health and Human Service, and the South Carolina Department of Education from national guidelines.

South Carolina Nurse Aide Training Program

<http://www.asivcs.com/indhome.asp?CPCAT=0741NURSE> -This page has information about testing, licensing and certification, and related support services like fingerprinting. The following documents and resources are available at this site

**OTHER RESOURCES:**

Colbert, Bruce J. Workplace Readiness for Health Occupations: A Foundation for Excellence. Delmar, latest edition.

Today's Class

<http://www.toadysclass.com>

Benjamin-Chung, Michele. Math Principles and Practice, Preparing for Health Career Success. Upper Saddle River: NJ: Prentice Hall, latest edition.

Haroun, Lee and Royce, Susan. Delmar's Teaching Ideas and Classroom Activities or Health Care. Albany, NY: Delmar, latest edition.

Toner, Patricia Rizzo, Consumer Health and Safety Activities, The Center for Applied Research in Education, latest edition.

Toner, Patricia Rizzo, Relationships and Communication Activities, The Center for Applied Research in Education, latest edition.

Toner, Patricia Rizzo, Stress Management and Self- Esteem Activities, The Center for Applied Research in Education, latest edition.

Umstatter, Jack. Brain Games: Ready-to-Use Activities That Make Thinking Fun for Grades 6-12. San Francisco: Jossey-Bass, latest edition.

Zedlitz, Robert H. How to Get a Job in Health Care. Albany, NY: Delmar, latest edition.

**WEB SITES:**

South Carolina Department of Education [www.ed.sc.gov](http://www.ed.sc.gov)

South Carolina Health Science Education Teacher Resource Guide  
[www.cateresources.net/HSTETeacherResourceGuide/index.html](http://www.cateresources.net/HSTETeacherResourceGuide/index.html)

Health Science Educator Resources [www.HealthScienceTeacher.com](http://www.HealthScienceTeacher.com)

National HOSA [www.hosa.org](http://www.hosa.org)

SC HOSA [www.schosa.org](http://www.schosa.org)

National Consortium for Health Science Education  
[www.healthscienceconsortium.org](http://www.healthscienceconsortium.org)

South Carolina Occupational Information System (SCOIS)

[www.scois.net](http://www.scois.net)

Personal Pathways to Success™

<http://www.palmettopathways.org/EEDA2/default.aspx>

## **EDUCATIONAL/CLASSROOM RESOURCES**

American Medical Association: Careers in Healthcare

<http://www.ama-assn.org/ama/pub/education-careers/careers-health-care.shtml>

America's Career InfoNet

<http://www.acinet.org/>

American Heart Association

<http://www.americanheart.org/presenter.jhtml?identifier=1200000>

American Journal of Nursing

<http://www.ajn.org/>

American Red Cross

<http://www.redcross.org/>

Annals of Internal Medicine

<http://www.annals.org/>

Anatomy in Clay

<http://www.anatomyinclay.com/>

Ask Dr. Math

<http://mathforum.org/dr.math/dr-math.html>

Assessment: Motivational Appraisal of Personal Potential

<http://student.assessment.com/>

Aetna: InteliHealth

<http://www.intelihealth.com/IH/ihtIH/WSIHW000/408/408.html>

Become an RN

<http://www.becomern.com/>

Be Something Amazing

<http://besomethingamazing.com/>

Blood Pressure Practice

<http://familymedicine.osu.edu/products/physicalexam/exam/flash/bloodpressure/index.html>

Body Works: A toolkit for healthy teens and strong families

<http://www.womenshealth.gov/bodyworks/>

Cancer.Net

<http://www.cancer.net/portal/site/patient>

Cardinal Health: Making healthcare safer and more productive

<http://www.cardinal.com/>

Career Voyages

<http://www.careervoyages.gov/healthcare-main.cfm>

CNN Health

<http://www.cnn.com/HEALTH/>

CollegeNet

<http://www.collegenet.com/elect/app/app>

CreativEd Services

<http://www.creativeservices.com/>

Dr. Greene.....caring for the next generation

<http://www.drgreene.com/>

Estronaut: A forum for women's health

<http://www.womenshealth.org/>

Explore Health Careers

<http://www.explorehealthcareers.org/en/Index.aspx>

Health Answers Education

<http://www.healthanswers.com/>

Health Central

<http://www.healthcentral.com/>



Heart & Lung Sounds

<http://www.easyauscultation.com/>

Health Scout

<http://www.healthscout.com/>

JAMA: The Journal of the American Medical Association

<http://jama.ama-assn.org/>

Kahoot – Interactive Review Game

<https://getkahoot.com/>

Learn and Serve America’s Service Learning Clearinghouse

<http://www.servicelearning.org/>

Medline Plus: Medical Encyclopedia

<http://www.nlm.nih.gov/medlineplus/encyclopedia.html>

Medical Math Lesson Plans

<http://cehd.umn.edu/NRCCTE/Math-In/MathHealth.html>

Medical Mysteries on the Web

<http://medmyst.rice.edu/>

Medical Reserve Corps

<http://www.medicalreservecorps.gov/HomePage>

MedicineNet: We Bring Doctors’ Knowledge to You (Medical Dictionary)

<http://www.medterms.com/script/main/hp.asp>

MedlinePlus: Trusted Health Information for You

<http://medlineplus.gov/>

Medscape from WebMD

<http://www.medscape.com/>

Merck: A Global Research-Driven Pharmaceutical Company

<http://www.merck.com/home.html>

MT Desk: Complete Online Resource Center for Medical Transcription Professionals

<http://www.mtdesk.com/>

National Institutes of Health, Office of Science Education

<http://science.education.nih.gov/lifeworks>

New England Journal of Medicine

<http://content.nejm.org/>

NORD: National Organization for Rare Disorders

<http://www.rarediseases.org/>

North Carolina Association for Biomedical Research

[http://www.ncabr.org/biomed/bio\\_resources/rx.html](http://www.ncabr.org/biomed/bio_resources/rx.html)

Nurse Spectrum | NurseWeek

<http://www.nurse.com/>

OncoLink: Abramson Cancer Center of the University of Pennsylvania

<http://www.oncolink.upenn.edu/>

Physicians' Desk Reference

<http://www.pdr.net/login/Login.aspx>

Pregnancy and Parenting for Today's Mom

<http://parenting.ivillage.com/>

PubMed: A service of the US National Library of Medicine and the National Institutes of Health

<http://www.ncbi.nlm.nih.gov/PubMed>

Reuters Health: The premier supplier of health and medical news

<http://www.reutershealth.com/en/index.html>

RxList: The Internet Drug Index

<http://www.rxlist.com/script/main/hp.asp>

Starla's Creative Teaching Tips

<http://www.starlasteachtips.com/>

States' Career Clusters

[www.careerclusters.org](http://www.careerclusters.org)

Stay Healthy

<http://www.stayhealthy.com/page/view.sh?id=home>

Texas Health Science

<http://cte.unt.edu/health>

The Educator's Reference Desk

<http://ericir.syr.edu/>

The Riley Guide: Employment Opportunities and Job Resources on the Internet

<http://www.rileyguide.com/>

U.S. Public Health Service

<http://www.usphs.gov/>

Us TOO International Prostate Cancer Education and Support Network

<http://www.ustoo.com/>

Web MD

<http://www.webmd.com/>

Weil (Andrew Weil, MD) Your Trusted Health Advisor

<http://www.drweil.com/>

Wellness Web

<http://www.wellweb.com/>

World Health Online

<http://www.healthy.net/>

Yahoo Health

<http://dir.yahoo.com/Health>    ADD ~ [www.healthscienceconsortium.org](http://www.healthscienceconsortium.org)